

circuit are within expected operating parameters over a plurality of clock cycles. The voltage is adjusted based on the determination.

#### BRIEF DESCRIPTION OF THE DRAWINGS

5 FIG. 1 is a block diagram of one embodiment of a system to provide adaptive voltage control.

FIG. 2 is an example of another system that can be utilized to provide adaptive voltage control.

10 FIG. 3 depicts still another example system to provide adaptive voltage control.

FIG. 4 depicts an example of a power supply control system that can be implemented.

FIG. 5 is flow diagram depicting a methodology for adapting voltage.

15 FIG. 6 is a flow diagram depicting a methodology for implementing an adaptive supply voltage.

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FIG. 7 is a flow diagram depicting another methodology for adjusting a supply voltage.

DETAILED DESCRIPTION

This disclosure relates generally to an approach that can be utilized to provide adaptive voltage control (e.g., for an IC chip). The voltage can be adapted, for example, based on detecting one or more symptoms indicative of wasted power, such as can be referred to as a "throttle event", or lack thereof. For example, a throttle event corresponds to a modification in operating frequency (e.g., a reduction or increase), such as implemented to facilitate operation of IC components in response to a corresponding modification in the voltage. The approach described herein may enable a designer and user to control the number of throttle events at a level that provides a desired balance between operating frequency and operating voltage, thus mitigating wasted power.

20 FIG. 1 depicts a system 10 that adjusts a supply voltage. The system 10 can be implemented on an IC 12, such as a VLSI chip (e.g., a microprocessor, an application specific integrated circuit (ASIC)) or the like. The system 10 in one embodiment enables the IC 12 to achieve a desired relationship between operating voltage and operating frequency, which may be used to improve overall power